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# *Western Area Power Administration Avian Protection Plan*

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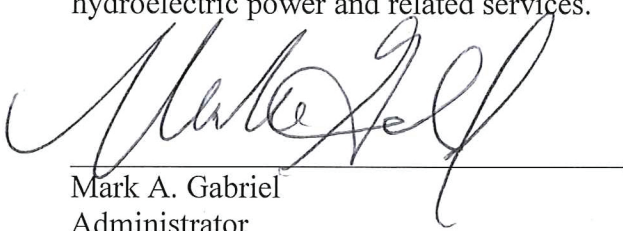
United States Department of Energy

May 2016

# Avian Protection Plan

## Western Area Power Administration

This voluntary Avian Protection Plan (APP) was developed based on guidelines established by the Edison Electric Institute's Avian Power Line Interaction Committee (APLIC) in collaboration with the United States Fish and Wildlife Service (Service). Western is an active APLIC member and continues to support ongoing collaborative efforts between the utility industry and the Service to meet energy needs while acting as responsible environmental stewards. This APP is a tool Western utilizes to avoid and minimize avian electrocutions and collisions with our electrical transmission infrastructure, execute actions to promote avian conservation, and strengthen its mission of marketing and delivering reliable, cost-based hydroelectric power and related services.



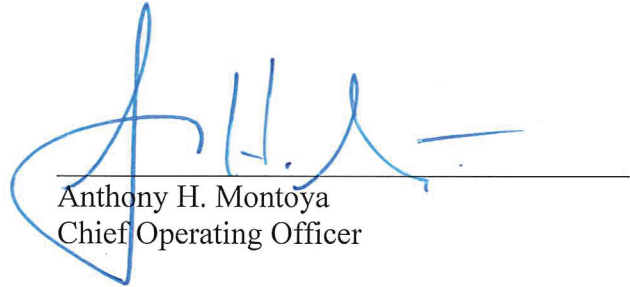
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Mark A. Gabriel  
Administrator

**Robert J.  
Harris**

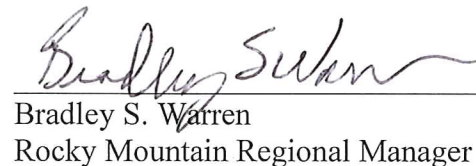
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J. Harris  
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Robert J. Harris  
Upper Great Plains Regional Manager



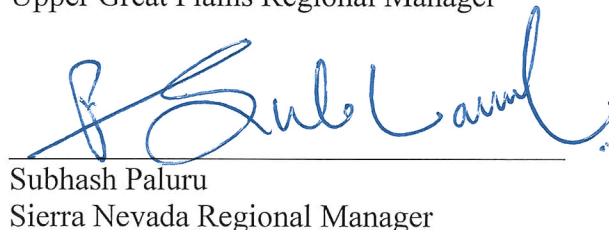
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Anthony H. Montoya  
Chief Operating Officer



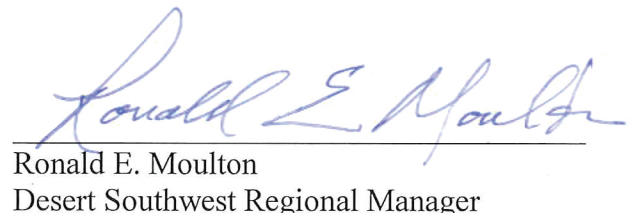
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Bradley S. Warren  
Rocky Mountain Regional Manager




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Subhash Paluru  
Sierra Nevada Regional Manager



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Ronald E. Moulton  
Desert Southwest Regional Manager



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Lynn C. Jeka  
Colorado River Storage Project Manager



## **Goal**

It is Western Area Power Administration's (Western) policy to reduce avian injury and mortality. Western's Avian Protection Plan (APP) utilizes the voluntary principles developed by the Avian Power Line Interaction Committee (APLIC) and the U.S. Fish and Wildlife Service (Service) to increase system reliability, while avoiding and minimizing the electrocution and collision hazards of an electrical system. Western's APP is a tool within our larger avian protection program to conserve birds while performing related actions, such as maintenance of access roads and integrated vegetative management of Rights-Of-Way, that may affect birds and are necessary to meet Western's mission of marketing and delivering reliable, renewable, cost-based hydroelectric power and related services within a 15-state region of the central and western United States. Western will continue to provide premier power marketing and transmission services to our customers, as well as contribute to enhancing America's energy security and sustaining our nation's economic vitality.

As an active APLIC member, Western is committed to engaging APLIC and the Service regarding the best available scientific information and Best Management Practices (BMPs) to avoid and minimize detrimental impacts to birds from construction, operations, and maintenance of transmission lines, substations, and associated infrastructure. Western implements our APP working in partnership with Federal, State, and local stakeholders to not only minimize avian electrocutions and collisions, but also enhance avian conservation.

## **Applicable Federal Laws and Policy**

- Section 215 of the Federal Power Act (16 U.S.C. § 824(o)) resulted in numerous reliability requirements, specifically "Transmission Vegetation Management" as approved by the Federal Energy Regulatory Commission (FERC) is relevant to the protection of avian species.
- The Migratory Bird Treaty Act of 1918 prohibits the taking, possessing, or transporting of any migratory bird, nest, egg, or part thereof without a permit (16 U.S.C. § 703-712).
- The Bald and Golden Eagle Protection Act of 1940 prohibits the taking, possessing, or transporting of a bald or golden eagle, nest, egg, or part thereof without a permit (16 U.S.C. § 668 *et seq.*).
- The Endangered Species Act of 1973 requires Federal agencies to utilize their authorities to carry out conservation programs to conserve listed species and to consult on any action that it may authorize, fund, or carry out to ensure those actions would not jeopardize the continued existence of any listed endangered, threatened, or proposed species (16 U.S.C. § 1531 *et seq.*, as amended).
- Executive Order 13186 of January 10, 2001, obligates Federal agencies to minimize the intentional take of migratory birds, develop procedures for the review and evaluation of actions that take migratory birds, and comply with the permit requirements of the Migratory Bird Treaty Act. Additionally, the order recommends agencies promote

research, provide training to employees, and develop partnerships with non-Federal entities to further bird conservation.

- Memorandum of Understanding between the United States Fish and Wildlife Service and the Department of Energy (DOE) signed September 12, 2013, in which the DOE agreed to use avian-friendly transmission lines, power poles, switch yards, and substations designed to minimize avian collisions and electrocutions. DOE also agreed to work towards reducing the overall environmental hazard to avian populations through risk assessments, evaluations, and monitoring.

Western can meet its FERC reliability requirement related to vegetation management while promoting avian conservation. The FERC vegetation management requirement is related to electric service reliability and public safety, requiring Western to maintain clearance at all times between trees and transmission lines in the right-of-way (ROW). System infrastructure and vegetation in ROWs are often used as habitat by avian species interacting in a potentially hazardous manner. Western is constantly refining its techniques to address avian protection across all regions by supporting design, construction, and maintenance activities that resolve avian issues at the earliest stage possible. Though an APP only focuses on electrocution and collision hazards associated with an electrical system, Western addresses related issues in coordination with the Service as part of our larger avian protection program.

### **Structure of Western's Avian Protection Plan**

Western's APP is divided into three sections:

<u>Section 1: Training</u>	Education provided to Western staff (both employees and contractors).
<u>Section 2: Adaptive Management</u>	Feedback process to reduce avian hazards, including solutions to retrofit or correct problem sites.
<u>Section 3: Incident Procedures</u>	Actions Western employees and contractors follow when encountering an avian conflict.

### **Section 1: Training**

APP training is required of all Maintenance, Engineering, Construction, Environment, Design, Project Management, and Safety personnel. Regional leads will prepare and conduct standardized training consistent across all regions. Covered topics will include applicable laws, regulations, and orders; an overview of general APP principles; a discussion of APP updates and provided materials; details on APP implementation, including reporting protocol; and exercises to encourage participation and increase understanding of the APP program.



## **Section 2: Adaptive Management**

### **A. Construction Design Standards**

Western incorporates the best available guidelines produced by APLIC developed in coordination with the Service. The latest “State of the Art” documents are from 2006 for electrocution mitigation (Suggested Practices for Avian Protection on Power Lines) and from 2012 for collision minimization (Reducing Avian Collisions with Power Lines). As future APLIC standards emerge, Western’s construction specifications outlined in Standard 13 will be updated. Western’s membership dues to APLIC help fund research on electrocutions, collisions, and avian hazard mitigation tools that benefit the entire utility industry.

### **B. Mortality Reduction Measures**

Western is tracking and identifying facilities, equipment, and locations that may be a high risk for avian mortality and are possible candidates for the installation of devices designed to reduce that risk.

### **C. Avian Enhancement Options**

Though complete avoidance is Western’s preference, sometimes construction, operation, or maintenance activities must occur during the nesting season and may result in trimming or removing of trees near an active nest, or even removal of active nests per Service permit conditions or requirements. In these situations, Western may choose to add artificial nest platforms, restore or manage habitats to benefit birds, and work cooperatively with other agencies and organizations to promote bird conservation.

### **D. Permit Compliance**

Western is pursuing Special Purpose Utility (SPUT) permits from the Service. Each region of the Service issues its own SPUT permit, which requires annual reporting and is valid for three years. SPUT permits may authorize the collection, transport, and temporarily possession of injured or dead birds, as well as the removal of active nests of most species on structures if they are causing operator safety concerns or a public safety risk, such as a fire or power outage.

### **E. Western’s Avian Reporting System**

Appendix 1 is Western’s avian reporting system that will be completed by Regional leads and submitted by them to the Service per their SPUT permit. This information will also be shared between Regional leads and the Headquarters coordinator to facilitate effective communication and problem solving.

## F. Public Awareness

Western prepares analyses of the environmental impacts of its proposed projects for public review and comment as part of its responsibilities under the National Environmental Policy Act. An evaluation of biological factors, including effects to avian species, is included in these analyses. Through this process the public is introduced to the APP and efforts by Western to benefit avian species.

## **Section 3: Incident Procedures**

When an avian incident is detected, such as an outage or safety-related issue, staff are trained to leave the bird or nest undisturbed, call their Regional lead immediately for further instruction, and fill out the first page of Appendix 1. If a positive identification can be made corroborated by the Regional lead, there are some avian species that are not protected and do not require any further action. This unprotected list includes, but is not limited to, the European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), rock pigeon (*Columba livia*), Eurasian collared-dove (*Streptopelia decaocto*), and rosy-faced lovebird (*Agapornis roseicollis*) (For a complete list of avian species protected pursuant to the Migratory Bird Treaty Act, visit <http://www.fws.gov/migratorybirds/regulationspolicies/mbta/mbtandx.html>).

## **Implementation of Western's Avian Protection Plan**

Western's APP is overseen by a Headquarters program coordinator facilitating communication, permitting, and reporting between Regional leads and developing unified Western policy for DOE, when appropriate, with input from Regional leads. Regional leads implement the APP by responding to avian issues as they arise and suggesting adaptive management remedies. Approval to spend money is received before improvements are implemented (Note: in emergencies, after-the-fact communication is pre-approved for minimal expenditures). All six Western representatives participate in DOE's Migratory Bird Working Group and Interagency Council for Conservation of Migratory Birds.

### **Headquarters**

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### **Desert Southwest (DSW)**

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### **Upper Great Plains (UGP)**

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### **Rocky Mountain (RMR)**

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### **Sierra Nevada (SNR)**

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## **Appendix 1: Avian Injury / Mortality / Nest Reporting Form**

### **Point of Contact Information**

Name of individual initiating report:
Date and time bird or nest was discovered (mm/dd/yyyy):

### **Details of Injury / Mortality / Nest**

Condition of bird (circle one): Alive / Dead:
Condition of nest (circle one): Empty / Eggs / Young / Not Applicable
Type or species of bird (e.g., bald eagle, red-tail hawk, etc.):
GPS location of bird / nest:
General description of bird / nest location:

### **Additional Information / Photographs**

Did you take any photographs (circle one)? Yes / No
If so, how many? _____ <i>(Please include all photographs with your submittal)</i>
Please include any additional observations or remarks regarding this injury / mortality / nest:



-----Remainder to be completed by Western Regional lead-----

Name of Western Regional lead:
Date of investigation of initial report (mm/dd/yyyy):

**Details of Injury / Mortality / Nest**

Bird species (common name / scientific name):
Condition of nest (circle one): Empty / Eggs / Young / Not Applicable
Condition of bird (circle one): Alive / Dead
If alive, actions taken:
Describe any visible injuries to the bird:
Disposition of bird (circle one): Collected / Not Collected
If recovered, circle one of the following:  <div style="display: flex; justify-content: space-around;"> <span>Disposed of</span> <span>Rehabilitation Center</span> <span>Transferred-to/Picked-up-By FWS</span> <span>Vet</span> </div>
Enter disposition details (i.e., how disposed of, name of rehab. center, name of FWS employee, name of vet.):
Apparent cause of injury or mortality (circle <u>all</u> that apply): <div style="display: flex; justify-content: space-around;"> <span>Electrocution</span> <span>Probable Electrocution</span> <span>Collision</span> <span>Probable Collision</span> </div> <i>If other, please describe:</i>
Was this incident associated with an outage? (circle one) Yes / No / Unknown  <div style="display: flex; justify-content: space-between;"> <span>If “yes”, approximate time of outage: _____</span> <span>Outage ID, if applicable: _____</span> </div>





**Location Where Bird / Nest Was Found**

State:	Town or community:	
Circuit number:	Circuit name:	Op. Area ID:
Pole number (if applicable):		
GPS coordinates:		
Nearest road or landmark (please be as specific as possible, e.g., milepost number nearest crossroad):		

**Configuration Details**

Enter the name of the configuration type that most closely matches the one involved in this incident ( <i>e.g., single- phase crossarm (RUS A9-1), substation, etc.</i> ):
If you entered “substation”, please identify <u>all</u> applicable equipment:
Is this a transmission line? (circle one) Yes / No
If you answered “Yes” to transmission line, please answer the following questions:  Is there an under-build on the pole? (circle one) Yes / No Is there an overhead static line? (circle one) Yes / No Are existing markers on conductors (i.e., Bird Flight Diverters)? (circle one) Yes / No
If this incident was related to an electrocution, or possible electrocution, enter <u>all</u> applicable equipment on the pole (e.g., arrestors, capacitors, switches, etc.):
Enter the voltage: _____ kV
Did the ground wire, or neutral, contribute to the electrocution? (circle one) Yes / No
If there was a cross-arm, what was the length?
If pole or equipment on pole is suspected cause, where was bird found in relation to pole or equipment?



**Environmental Conditions**

Surrounding environment (circle <u>all</u> that apply): Forest    Grassland    Tundra    Wetland    Urban	Nearby food sources (circle <u>all</u> that apply): Agricultural fields Dumpster Landfill Person feeding prey Prey species Restaurant / Cafe Salmon stream <i>If other food source(s), please specify:</i>
Approximate time of day (circle, if known): Day / Night	
Details about nesting information (i.e., is there a nest on the structure or in the area?):	

**Existing Protection / Retrofit Measures**

Is there existing avian protection on the structure? (circle one) Yes / No

**If “yes”, please mark all that apply:**

- |   |   |
|---|---|
| <input type="checkbox"/> Bird deterrent device (if other than a perch guard)  | Type: _____   |
| <input type="checkbox"/> Bird flight diverter                                 | Type: _____   |
| <input type="checkbox"/> Conductor spacing increased                          | Quantify: _____   |
| <input type="checkbox"/> Lowered crossarm                                     | <input type="checkbox"/> Pole-top extension                           |
| <input type="checkbox"/> Elevated perch                                       | <input type="checkbox"/> Perch guard deterrent(s)                     |
| <input type="checkbox"/> Ground wire cover / Insulation                       | <input type="checkbox"/> Jumper wire cover / Insulation               |
| <input type="checkbox"/> Bushing cover(s)                                     | <input type="checkbox"/> Primary insulator cover (i.e., "bird guard") |
| <input type="checkbox"/> Jumper wire(s) suspended under crossarm              |   |
| <input type="checkbox"/> <i>If other protection(s), please specify:</i> _____ |   |

**Adaptive Management Solution** to further minimize hazard (attach additional pages as needed).

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